CHAPTER Env-A 2000 FUEL BURNING DEVICES

Statutory Authority: RSA 125-C:4

PART Env-A 2001 PURPOSE AND APPLICABILITY

Env-A 2001.01 <u>Purpose</u>. The purpose of this chapter is to establish emission standards for particulate matter and visible emissions from stationary fuel burning devices pursuant to RSA 125-C:6, II and 40 CFR 60.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss by #8331, eff 4-23-05

Env-A 2001.02 <u>Applicability</u>. This chapter shall apply to the owner or operator of any stationary fuel burning device that is a source of particulate matter or visible emissions.

Source. #8331, eff 4-23-05

PART Env-A 2002 OPERATIONAL REQUIREMENTS

Env-A 2002.01 <u>Visible Emission Standard For Fuel Burning Devices Installed on or Prior to May 13, 1970</u>. Except as specified in Env-A 2002.04, below, the owner or operator shall not cause or allow average opacity from fuel burning devices installed on or prior to May 13, 1970 in excess of 40 percent (%) for any continuous 6-minute period.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.01)

Env-A 2002.02 <u>Visible Emission Standard for Fuel Burning Devices Installed After May 13, 1970</u>. Except as specified in Env-A 2002.04, below, the owner or operator shall not cause or allow average opacity from fuel burning devices installed after May 13, 1970 in excess of 20% for any continuous 6-minute period.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.02)

Env-A 2002.03 <u>Replacement of Fuel Burning Devices</u>. When it becomes necessary to replace fuel burning devices installed on or prior to May 13, 1970, the owner or operator shall operate within the limits established in Env-A 2002.02.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.03)

Env-A 2002.04 Activities Exempt from Visible Emission Standards.

- (a) For those steam generating units subject to 40 CFR 60, no more than one of the following 2 exemptions shall be taken:
 - (1) During periods of startup, shutdown and malfunction, average opacity shall be allowed to be in excess of 20% for one period of 6 continuous minutes in any 60-minute period; or
 - (2) During periods of normal operation, soot blowing, grate cleaning, and cleaning of fires, average opacity shall be allowed to be in excess of 20% but not more than 27% for one period of 6 continuous minutes in any 60-minute period.
- (b) For those devices installed on or prior to May 13, 1970, having a gross heat input equal to or greater than 500 million BTU/hr, and equipped with automatic soot blowers, the average opacity shall be allowed to be

in excess of 40% percent for a non-overlapping set or sets of time up to 60 minutes in any 8-hour period during startup, shutdown, malfunction, soot blowing, grate cleaning, and cleaning of fires.

- (c) For those fuel burning devices not included in items (a) and (b), above, the average opacity shall be allowed to be in excess of those standards specified in Env-A 2002.01 and Env-A 2002.02 for one period of 6 continuous minutes in any 60-minute period during startup, shutdown, malfunction, soot blowing, grate cleaning, and cleaning of fires.
- (d) Exceedances of the opacity standard shall not be considered violations of this chapter if the owner or operator demonstrates to the department that such exceedances were the result of the adherence to good boiler operating practices which, in the long term, results in the most efficient or safe operation of the boiler.
- (e) Examples of activities that might cause exceedances of the opacity standard that shall not be considered violations include the following:
 - (1) Continuous soot blowing of the entire boiler tube sections over regular time intervals as determined by the operator and in conformance with good boiler operating practice; and
 - (2) Cold startup of a boiler over a continuous period of time resulting in efficient heat-up and stabilization of its operation and the expeditious achievement of normal operation of the unit.
- (f) Exceedances of the opacity standard shall not be considered violations of this chapter if the source demonstrates to the department that such exceedances were the result of the occurrence of an unplanned incident in which the opacity exceedance was beyond the control of the operator and that in response to such an incident, the operator took appropriate steps in conformance with good boiler operating practice to eliminate the excess opacity as quickly as possible.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.04)

Env-A 2002.05 Opacity Standards for Fuel Burning Devices Subject to 40 CFR 60. In addition to the opacity standards and exemptions specified in this chapter, those fuel burning devices meeting the applicability requirements of 40 CFR 60 shall meet the opacity standards specified therein.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.05)

Env-A 2002.06 <u>Particulate Emission Standards for Fuel Burning Devices Installed on or Prior to May 13,</u> 1970.

- (a) "E" means the maximum allowable particulate matter emission rate in lb/10⁶ BTU:
- (b) "I" means the maximum gross heat input rate in 10⁶ BTU/hr;
- (c) No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices installed on or prior to May 13, 1970, to exceed the specified value of E, where:
 - (1) For devices with I less than 10, E shall be equal to 0.60;
 - (2) For devices with I equal to or greater than 10 but less than 10,000, E shall be calculated by raising I to the -0.166 power, and multiplying the result by 0.880, expressed mathematically in the formula below, and as illustrated in Figure 2002-1, below:

$$E = 0.880 \; I^{\text{-}0.166}$$

0.6 Maximum Allow able Particulate 0.5 Emission (E), Lb/MM BTU 0.4 0.3 0.2 0.1 7000 8000 9000 10000 4000 5000 6000 1000 2000 3000 0 Maximum Gross Heat Input (I), MM BTU/Hr

<u>Figure 2002-1 Maximum Allowable Particulate Matter Emission Rate</u> for Fuel Burning Devices Installed on or Prior to May 13, 1970.

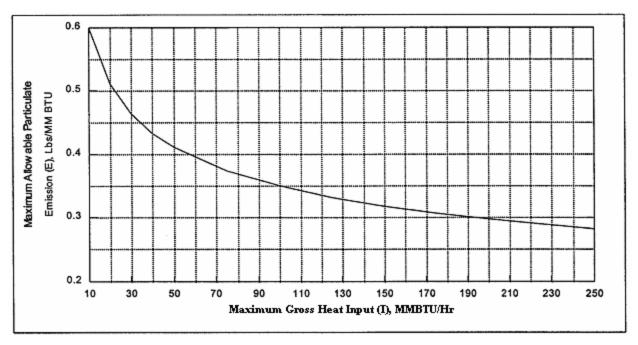
(3) For devices with I equal to or greater than 10,000, E shall be equal to 0.19.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.06)

Env-A 2002.07 <u>Particulate Emission Standards for Fuel Burning Devices Installed After May 13, 1970 but Before January 1, 1985</u>.

- (a) "E" means the maximum allowable particulate matter emission rate in lb/10 BTU;
- (b) "I" means the maximum gross heat input rate in 10⁶ BTU/hr;
- (c) No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices installed after May 13, 1970, but before January 1, 1985, to exceed the specified value of E, where:
 - (1) For devices with I less than 10, E shall be equal to 0.60;
 - (2) For devices with I equal to or greater than 10 but less than 250, E shall be calculated by raising I to the -0.234 power, and multiplying the result by 1.028, expressed mathematically in the formula below and as illustrated in Figure 2002-2 below:

$$E = 1.028 I^{-0.234}$$



<u>Figure 2002-2 Maximum Allowable Particulate Matter Emission Rate for Fuel Burning Devices Installed After May 13, 1970, but before January 1, 1985.</u>

(3) For devices with I equal to or greater than 250, E shall be equal to 0.10.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.07)

Env-A 2002.08 <u>Particulate Emission Standards for Fuel Burning Devices Installed On or After January 1, 1985.</u>

- (a) "E" means the maximum allowable particulate matter emission rate in $lb/10^6\,BTU$;
- (b) "I" means the maximum gross heat input rate in 10⁶ BTU/hr;
- (c) No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices installed on or after January 1, 1985, to exceed the specified value of E, where:
 - (1) For devices with I less than 100, E shall be equal to 0.30;
 - (2) For devices with I equal to or greater than 100 but less than 250, E shall be equal to 0.15; or
 - (3) For devices with I equal to or greater than 250, E shall be equal to 0.10.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.08)

Env-A 2002.09 <u>Particulate Emissions from Common and Multiple Stacks</u>. When one fuel burning device is connected to 2 or more stacks, the allowable particulate emission shall not exceed that allowable for the same device had it been connected to only one stack.

<u>Source.</u> #6505-B, eff 5-1-97 (formerly Env-A 1202); ss and moved by #8331, eff 4-23-05 (from Env-A 2003.09)

Env-A 2002.10 <u>Determining Compliance with Particulate Emissions Standards</u>. The owner or operator of a fuel burning device shall determine compliance with the particulate matter emission standards specified in Env-A 2002.06, Env-A 2002.07, Env-A 2002.08, and Env-A 2002.09 using the stack testing requirements specified in Env-A 802.02.

Source. #8331, eff 4-23-05

Appendix

Rule	Statute Implemented0
Env-A 2001.01	RSA 125-C:4, I(a); RSA 125-C:6, II
Env-A 2001.02	RSA 125-C:4, I(a); RSA 125-C:6, II
Env-A 2002.01 - 2002.10	RSA 125-C:4, I(a); RSA 125-C:6, II